

So why even do this, other than the obvious reason which is FUN!

Well, remember LCM (lowest common multiple) and Common Factors? Prime factors can make that easy

Use the prime factors to find the first 3 common factors, and 3 lowest common multiples.

$$36 = 2 \times 2 \times 3 \times 3 \quad 60 = 2 \times 2 \times 3 \times 5$$

First pair of common prime factors

$2 \times 2 \times 3$ is common. THIS MEANS that 2, and 3 are common factors, and so are 2×2 (4), 2×3 (6), and $2 \times 2 \times 3$ (12)

The LCM will be the COMMON FACTORS \times REMAINING FACTORS

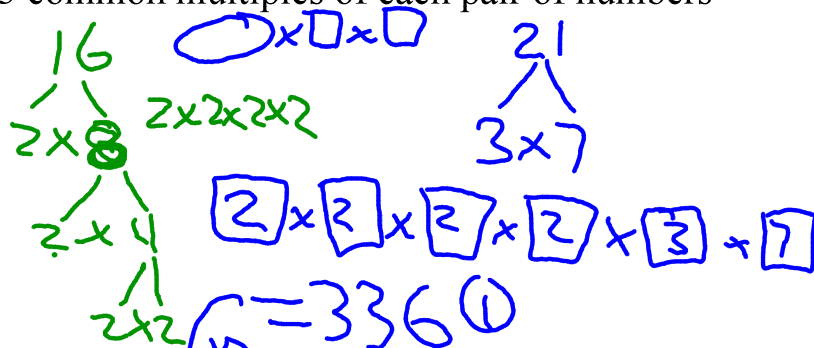
$$2 \times 2 \times 3 \times 3 \times 5 = 180$$

The second lowest multiple is 2×180
the third is 3×180

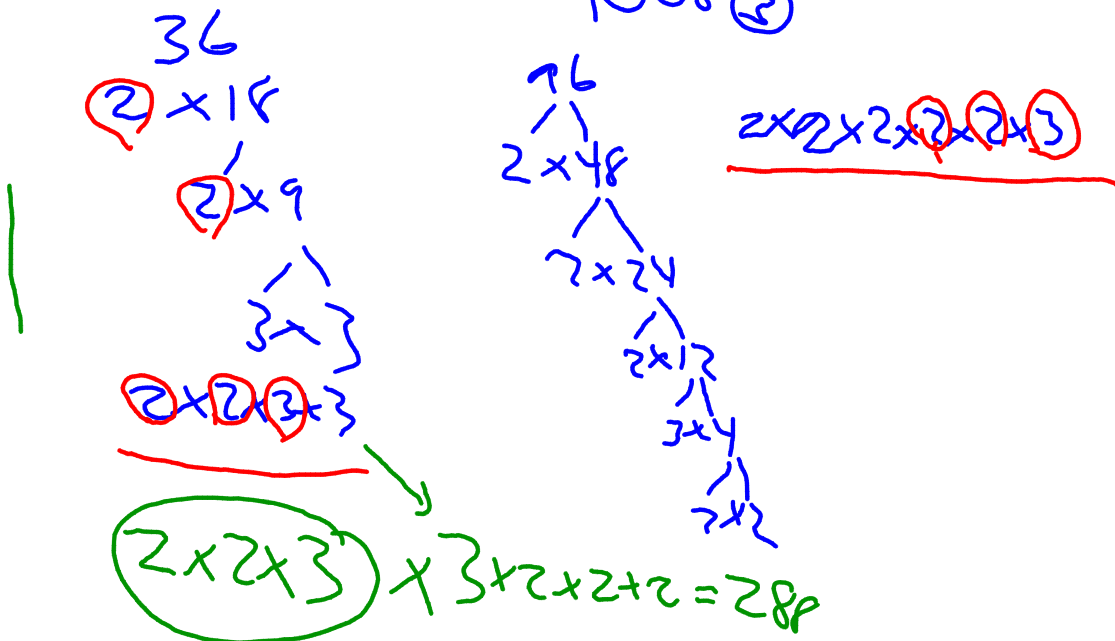
Use the prime factors from questions 2 and 3.

Find the first 3 common multiples of each pair of numbers

a) 16, 21



b) 36, 96



Homework? : Use P.F. to find the 1st 3 common multiples and ALL common Factors.

a) 77, 88

b) 36, 63

c) 125, 400